

Figure 1

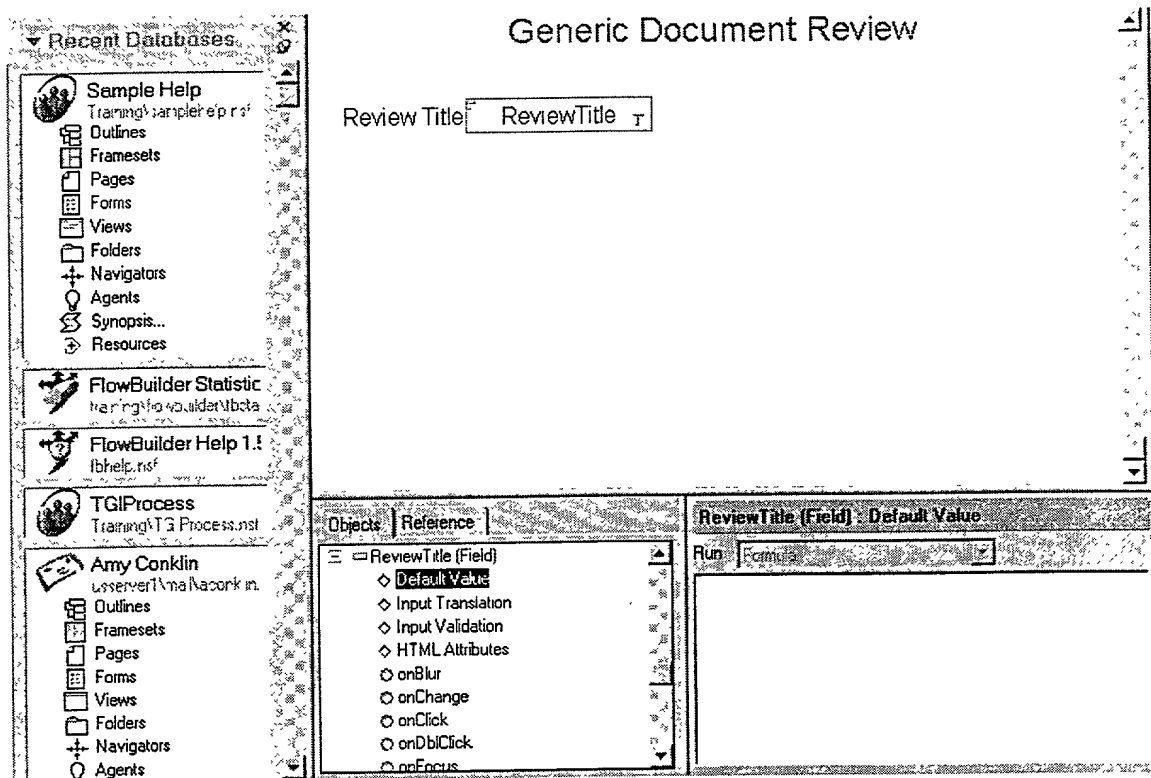


Figure 2

300

312

System Toolbar

FlowBuilder 1.51a - Visual Designer

FlowBuilder 1.51a

Visual Designer

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Workflow Cycles

- Absence Request
- Reason Award Nomination Process
- Benefits Enrollment
- complaint handling event
- Customer Support Request
- DANA Customer Support Request
- eBeam Support Request
- Expense Reporting
- FlowBuilder Forum
- Genetic Document Review
- Kemper Logon ID Request Final Version
- New Online Order
- New Order
- New Product Request
- Processus Questions Response
- Purchase Order
- Salary Review

Routing Types

Messages

Database Aliases

318

320

322

Workflow Object Store

316

302

Objects Toolbar

332

326

330

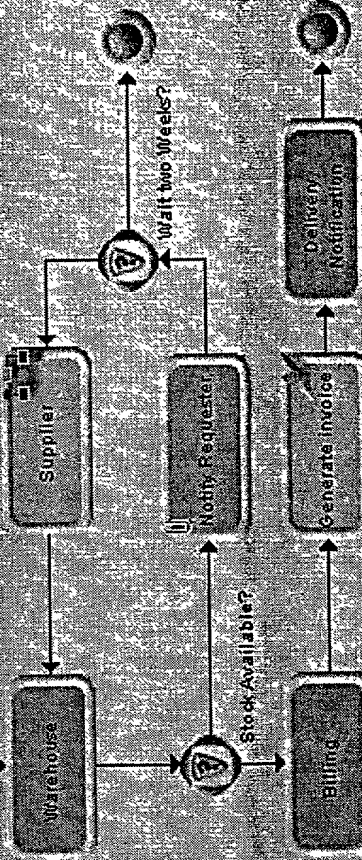
324

328

Workflow Design Area

304

This is an example of an actual process that handles the incoming online orders from an e-commerce Web Site



- Event 'New Online Order'
- Segment 'Warehouse'
- Segment 'Delivery Notification'
- Segment 'Billing'
- External 'Generate Invoice'
- Condition 'Stock Available?'
- Condition 'Wait two Weeks?'
- Subflow 'Supplier'

New Online Order

enile

Server

Database

Form

Condition

Inspector Comments

306- Object Inspector

Comments Panel-308

Properties Panel-310

Figure 3

96962600

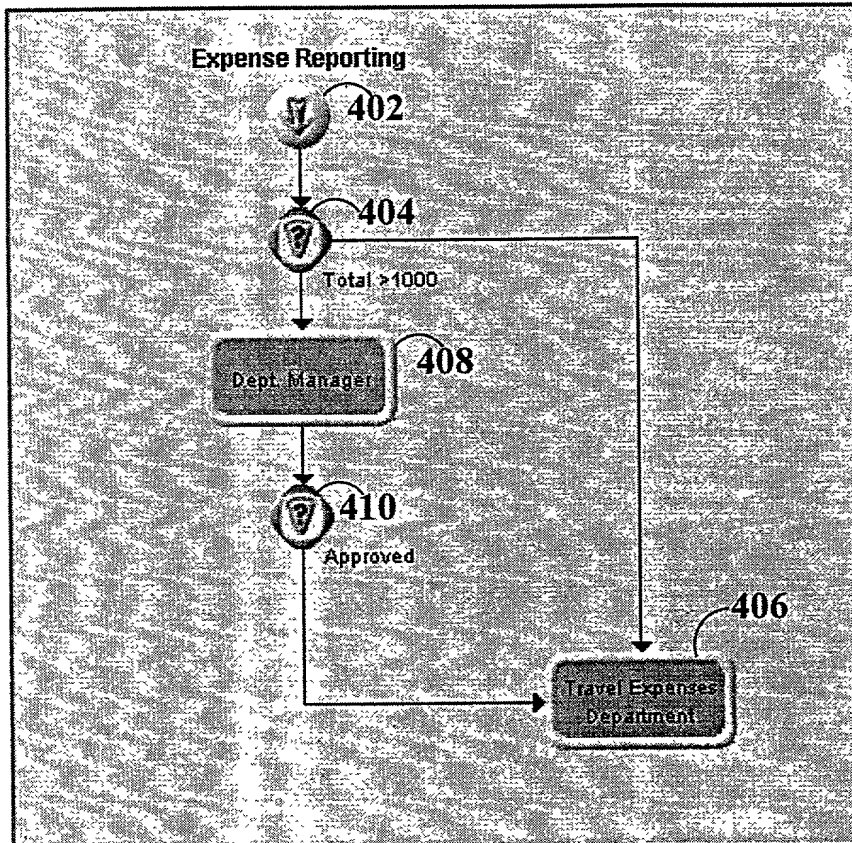


Figure 4

500

506

502

504

Event 'Expense Reporting'

- ▶ Segment 'Dept. Manager'
- ▶ Segment 'Travel Expenses Depa'
- ▶ Condition 'Total >1000'
- ▶ Condition 'Approved'

Event: Expense Reporting

Alias: FlowBuilder Sample Database

Server:

Database:

Form: fb_trpa

Condition:

Priority: High

☒ Activate Process

Inspector Comments

Figure 5

Event 'Absence Request'	
Segment "Line Manager Approval"	
Routing type	Approval
Routing rules	Everybody
Routing options	Anybody — 602
Time limit	Everybody — 604
	Majority — 606

Sign off is required by

Figure 6a

Event 'Cycle' ▼ Segment 'Segment1' Routing type Routing rules Routing options Deadline date Deadline handler	Routing Type Sign off is required by Approval Combined Approval/Edit For information Review Simple Review
Inspector Comments	

Figure 6b

Event 'Expense Reporting'

▼ Segment 'Dept. Manager'

Routing type

Routing rules

Routing options

Deadline date

Deadline handler

► Segment 'Travel Expenses Department'

▼ Condition 'Total >1000'

Previous result

Formula

On requester

► Condition 'Approved'

Routing Rules

Always send to: Department Manager

Branching Label

Formula

Simple Roles

Department Manager

Composed Roles

Static Users

Add Change Delete Clear

Inspector
Comments

Figure 7a

40940 9932300

Event 'Expense Reporting'

Segment 'Dept. Manager'

Routing type

Routing rules

Routing options

Deadline date

Deadline handler

Segment 'Travel Expenses Department'

Condition 'Total >1000'

Condition 'Approved'

Routing Rules

Always send to: Department Manager

Branching Label

Formula

Simple Roles: Department Manager

Composed Roles

Static Users

New Duplicate Delete

Inspector
Comments

Figure 7b

The image shows a screenshot of a software interface, likely for a workflow or expense management system. The interface is divided into two main sections. The left section, labeled 802, contains a tree view of the workflow structure. The right section, labeled 804, contains a list of configuration options with checkboxes.

Left Panel (802):

- Event 'Expense Reporting'
 - ▼ Segment 'Dept. Manager'
 - Routing type
 - Routing rules
 - Routing options
 - Deadline date
 - Deadline handler
 - ▶ Segment 'Travel Expenses'
 - ▶ Condition 'Total >1000'
 - ▶ Condition 'Approved'

Right Panel (804):

- ☒ View History
- ☐ Notify Subsequent Routing to Requester
- ☐ Notify Action Result to Requester
- ☐ Switch to Other Form for Display
- ☒ Authorize Reassignment
- ☒ Authorize Delegation
- ☒ View Other Actors

Figure 8

902

Event 'Cycle' ▼ External 'External1' External handler	Segment ID	External1
	Label	
	Comment	
	Link to URL	
		Preview

Inspector Comments

Figure 9

FOUO 563230

1002

Event 'Cycle'	
▽ External 'External1'	
External handler	
Yield for external processing task <input type="button" value="No"/>	
Alias	<input type="text"/>
Server	<input type="text"/>
Database	<input type="text"/>
Agent	<input type="text"/>
Inspector	Comments

Figure 10

103040 9696600

Event 'Expense Reporting'	<input checked="" type="checkbox"/> Set Deadline
Segment 'Dept. Manager'	Deadline Type: Handling Margin
Routing type	Handling Margin
Routing rules	User Defined Deadline Date
Routing options	Time Unit: Days
Deadline date	Handling Margin: 0
Deadline handler	
Segment 'Travel Expenses'	
Condition 'Total >1000'	
Condition 'Approved'	

Inspector Comments

Figure 11

Event 'Expense Reporting'

▼ **Segment 'Dept. Manager'**

- Routing type
- Routing rules
- Routing options
- Deadline date
- Deadline handler

▶ **Segment 'Travel Expense'**

▶ **Condition 'Total >1000'**

▶ **Condition 'Approved'**

How should FlowBuilder handle this deadline 1202

Send Reminder ▼

Time unit: Days ▼

Start sending reminders: 2 before deadline

Stop sending reminders: 0 after deadline

Repeat interval: 1

Repeat number: 1

Who should FlowBuilder notify if deadline is exceeded

☐ Notify Requester —1204

☐ Notify People —1206

What should FlowBuilder do if reminder is ignored 1208

Abort Cycle ▼

Who should FlowBuilder notify if reminder is ignored

☐ Notify Requester

☐ Notify People

Inspector

Comments

Figure 12

Event 'Expense Reporting'

- ▶ Segment 'Dept. Manager'
- ▶ Segment 'Travel Expenses Depa
- ▶ Condition 'Total >1000'
- ▼ Condition 'Approved'
 - Previous result
 - Formula
 - On requester

Document Formula

Inspector Comments

Figure 14

1502

☒ Set Requester Filter

Requester is assigned the following roles —1504 Include subtree

☒

Requester is not assigned the following roles —1506

☒

Requester belongs to the following organizations —1508

☒

Requester does not belong to the following organizations —1510

☒

Figure 15

Composed Role	Evaluation Result	Remarks
{"Philip Collins/TRILOG"}	Philip Collins/TRILOG	This is equivalent to choosing a static user from your Name and Address Book.
Line Manager ({ "Philip Collins/TRILOG": "Mary Davis/TRILOG" })	Line Manager of Philip Collins/TRILOG Line Manager of Mary Davis/TRILOG	The Notes formula is evaluated to a user list then the simple role is applied to each user independently.
{@UserName}	The workflow requester	Do not use @UserName in a formula, as the user who launched the FlowBuilder Router is returned.
Secretary({@Subset(\$UpdatedBy;-1)})	The secretary of the user who last updated the document	Only valid if the Form is not marked anonymous.
Line Manager ({FB_Requester})	The Line Manager of the Requester	This syntax is equivalent to Line Manager..
[Project]	The Project field in the document is interpreted as a role. Usually, users will use a dropdown list with the existing projects and have them available as roles in the Planner. If the user selects Project A for instance, MORSE will evaluate the role Project A to determine the recipients.	Square brackets can be used in the same way braces are used. MORSE would simply interpret the result of the formula as roles that yet need to be evaluated to recipients.
Secretary (Accounts Payable({FB_ActionUser}))	The secretary of Accounts Payable of all users who were acting on the document in the previous workflow segment.	Roles at any level may be composed.

Figure 16

1702

Event 'Cycle' ▶ External 'External1' Subflow 'Subflow1'	Subflow ID	<input type="text" value="Subflow1"/>
	Label	<input type="text"/>
	Target Cycle	<input type="text" value="1704"/>
	Comment	<div></div>
	Link to URL	<input type="text"/> <input type="button" value="Preview"/>

Inspector **Comments**

Figure 17

105040-9052660

1802


Routing Type

Routing Type	Combined Approval/Edit
Notification Message	Default Approval Notification
Routing Category	Activity required
Activity Label	
Activity Description	You are required to Approve or Deny this request. You are allowed to update the following information if needed.
Document Access	Editor
Activity Status Labels	
Pending Status	Pending
Success Status	Approved
Failure Status (optional)	Denied
Activity Result Notification	
Success Message	Successful Approval Message
Failure Message	Denial Message

Figure 18a

009295 0460
T09040 96982860

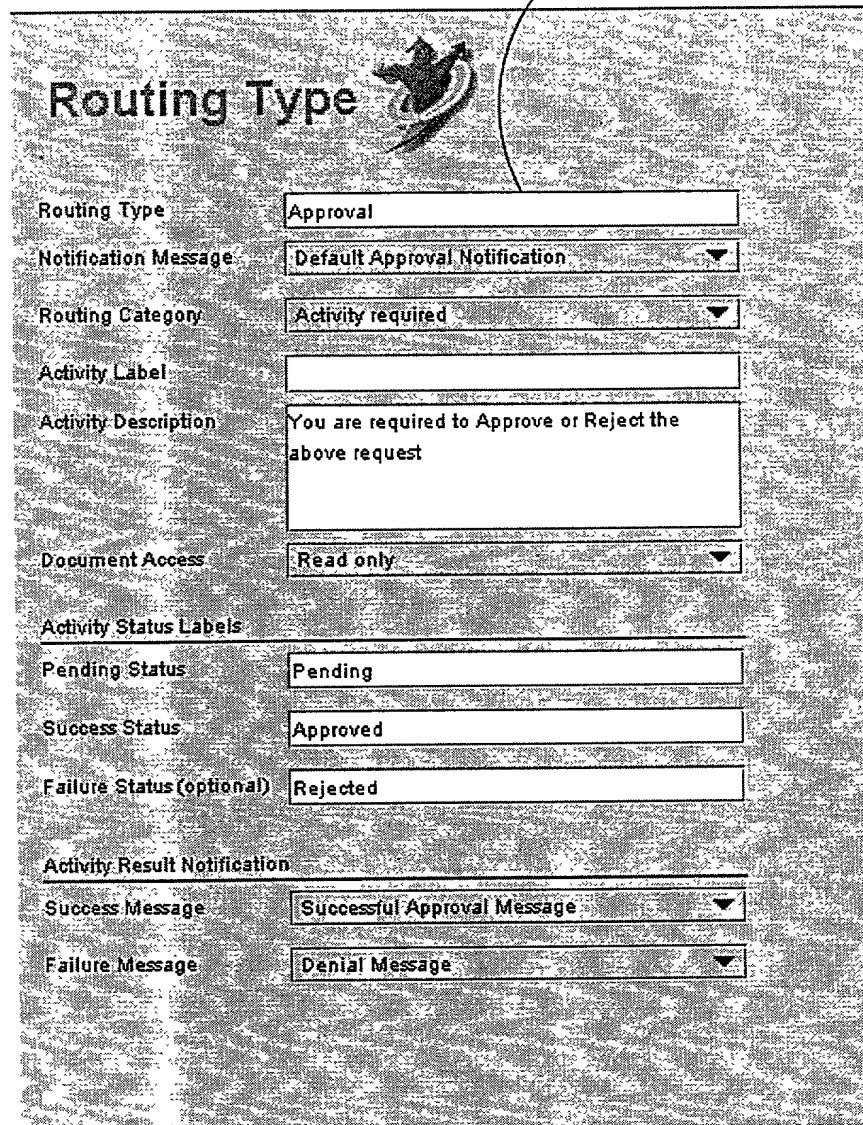
1804

Routing Type 

Routing Type	Simple Review
Notification Message	Default Review Notification ▼
Routing Category	Purely Informational ▼

Figure 18b

1806




The image shows a configuration form titled "Routing Type" with a logo of a bird in flight. The form is divided into several sections with labels on the left and input fields on the right. The sections include: Routing Type (text input), Notification Message (dropdown), Routing Category (dropdown), Activity Label (text input), Activity Description (text area), Document Access (dropdown), Activity Status Labels (a group of three text inputs for Pending Status, Success Status, and Failure Status), and Activity Result Notification (a group of two dropdowns for Success Message and Failure Message). A curved line points from the number "1806" to the top right corner of the form.

Routing Type	Approval
Notification Message	Default Approval Notification
Routing Category	Activity required
Activity Label	
Activity Description	You are required to Approve or Reject the above request
Document Access	Read only
Activity Status Labels	
Pending Status	Pending
Success Status	Approved
Failure Status (optional)	Rejected
Activity Result Notification	
Success Message	Successful Approval Message
Failure Message	Denial Message

Figure 18c


1808

Routing Type 

Routing Type	For information
Notification Message	Generic Information Message ▼
Routing Category	Purely informational ▼

Figure 18d

1810

Routing Type 

Routing Type:

Notification Message:

Routing Category:

Activity Label:

Activity Description:

Document Access:

Activity Status Labels

Pending Status:

Success Status:

Failure Status (optional):

Activity Result Notification

Success Message:

Failure Message:

Figure 18e

Figure 19a

Notification Message

Message Id

Default Approval Notification

Message description

This is the default message associated with all approval actions unless overridden in a workflow segment route description

Subject

{FB_Event} from {@Name({CN};FB_Request)}: Approval Required

Body

Please approve the following document requested by {@Name({Abbreviate};FB_Request)}:

Options

☒ Append URL

☒ Keep URL Parameters

☒ Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}: Approval Required

Request submitted by {@Name({CN};FB_Request)} on {@Date({FB_RequestTime})}

Figure 19b

Notification Message

Message Id	Default Review Notification
Message description	This is the default message associated with all review actions unless overridden in a workflow segment route description
Subject	{FB_Event}; Review requested by {@Name({CN};FB_Requester)}
Body	Please review the following document requested by {@Name({Abbreviate};FB_Requester)}:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink


Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}; Approval Required
 Request submitted by {@Name({CN};FB_Requester)} on {@Date(FB_RequestTime)}

Figure 19d



Notification Message

Message Id	Denial Review Message
Message description	Denial Review Message
Subject	{FB_Event}; Reviewer denied.
Body	Reviewer had several remarks on the document submitted on {@Text(FB_RequestTime)}. See comments:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform:

Example:

{FB_Event}; Approval Required
 Request submitted by {@Name({CN};FB_Requester)} on {@Date(FB_RequestTime)}

Figure 19e

Notification Message

Message id	Generic Information Message
Message description	Generic Notification (purely informational)
Subject	Notification about {FB_Event}; Document submitted by {@Name(CN);FB_Requester}.
Body	Document submitted by {@Name(CN);FB_Requester} on {@Text(FB_RequestTime)}.
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:
 {FB_Event};Approval Required
 Request submitted by {@Name(CN);FB_Requester} on {@Date(FB_RequestTime)}

Figure 19f

Notification Message

Message Id	Simple Review Completion
Message description	Simple Review Completion Message
Subject	{FB_Event}; Reviewer has reviewed the document.
Body	The document you submitted on {@Text{FB_RequestTime}} has been reviewed. See comments:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink


Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run-time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}; Approval Required
Request submitted by {@Name{CN};FB_Requester}} on {@Date{FB_RequestTime}}

Figure 19h



Notification Message

Message Id

Successful Approval Message

Message description

Successful Approval Message

Subject

{FB_Event}; Your request has been approved.

Body

The request you submitted on {@Text{FB_RequestTime}} has been approved.

Options

☒ Append URL
☒ Keep URL Parameters
☒ Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}; Approval Required
 Request submitted by {@Name{CN};FB_Requested} on {@Date{FB_RequestTime}}

Figure 19i

Notification Message

Message Id	Successful Review Message
Message description	Successful Review Message
Subject	{FB_Event}; Review completed successfully.
Body	The document you submitted on {@Text(FB_RequestTime)} has been reviewed and approved.
Options	<input checked="" type="checkbox"/> Append URL <input type="checkbox"/> Keep URL Parameters <input type="checkbox"/> Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula adding on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:
 {FB_Event}; Approval Required
 Request submitted by {@Name(CN);FB_Request} on {@Date(FB_RequestTime)}

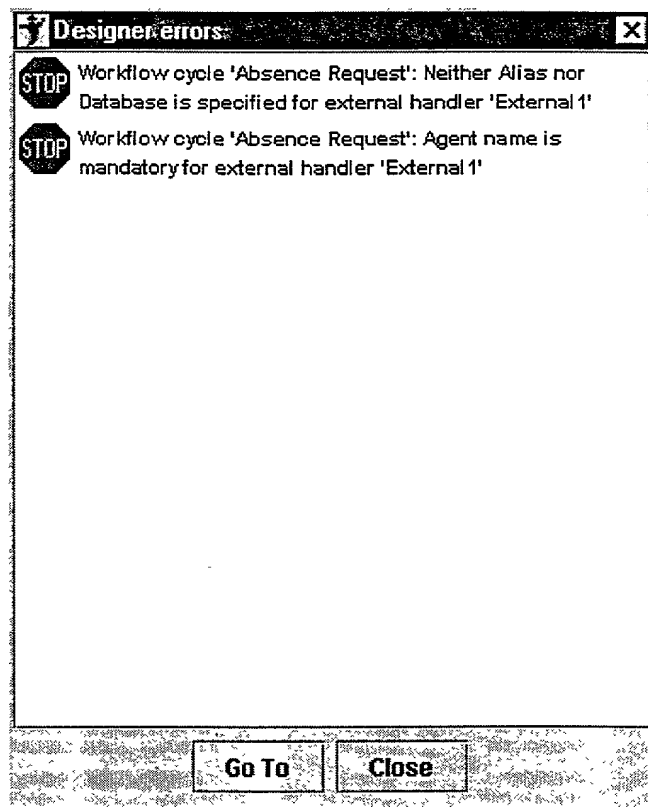


Figure 20

FlowBuilder Statistics				
Workflow Requests				
All By Date and Event				
All By Requester				
Pending By Date and Event				
Processed By Date				
Performance Indicators				
Average Processing Time				
Daily Load Per User				
Global Load Per User				
Requester	Event	Created	Last processed	Current Status
1 ▼ Marv Davis/TRILOG	Expense Reporting	09/09/2000 04:39:43 PM		⚙ Pending Approval
4 ▼ Philip Collins/TRILOG	Absence Request	09/09/2000 04:48:04 PM		⚙ Pending Approval
	Salary Review	09/09/2000 04:26:45 PM	09/09/2000 04:29:15 PM	✗ Back for changes
	Absence Request	09/09/2000 04:24:23 PM	09/09/2000 04:28:39 PM	✓ Approved
	Absence Request	09/09/2000 08:39:48 AM	09/09/2000 04:42:43 PM	✓ Approved
1 ▼ Sam Moneypermy/TRILOG	Expense Reporting	09/09/2000 04:44:20 PM		⚙ Pending Approval
1 ▼ Ulrich Finger/TRILOG	Absence Request	09/09/2000 04:49:40 PM		⚙ Pending Approval

Figure 21

Actual Document

9/9/00 4:48:18 PM Requester = Philip Collins/TRILOG

9/9/00 4:48:18 PM Notification sent to the following recipients:

Mary Davis/TRILOG - Role : Line Manager

9/9/00 4:48:18 PM Number of people required for success = 1

9/9/00 4:48:18 PM User(s): Mary Davis/TRILOG

Notified about : Absence Request from Philip Collins: Approval Required

Figure 22

Reassign Task

Reassign Task

Server: Training/TRILOG
Database: flowbuilder\fb-sample.nsf
Process: Absence Request

Current Activity Participants: Mary Davis/TRILOG

Reassign To: Sam Moneypenny/TRILOG

Reassign

OK

Figure 23

**Workflow History****Actual Document**

9/9/00 4:48:18 PM New Event 'Absence Request' detected: Workflow Cycle initiated on form 'Absence Request'.

9/9/00 4:48:18 PM Requester = Philip Collins/TRILOG

9/9/00 4:48:18 PM Absence Request: Executing Workflow Segment -> Line Manager Approval

9/9/00 4:48:18 PM Notification sent to the following recipients:

Mary Davis/TRILOG - Role : Line Manager

9/9/00 4:48:18 PM Number of people required for success = 1

9/9/00 4:48:18 PM User(s): Mary Davis/TRILOG




Notified about : Absence Request from Philip Collins: Approval Required


9/9/00 9:18:49 PM Action Approval reassigned by Mary Davis/TRILOG to Sam Moneypenny/TRILOG

9/9/00 9:18:49 PM User(s): Sam Moneypenny/TRILOG

Notified about : Absence Request from Philip Collins: Approval Required

Figure 24


Address  http://localhost/fbmanager.html  Go  Links

**FlowBuilder
Servlet Manager**

Enter Password

[Change Password](#)

Confirm



[Stop Service](#)

[Set High Priority](#)

[Set Normal Priority](#)

[Set Low Priority](#)

[Set Deadline Frequency](#)

FlowBuilder Router Information

Service Database	High Priority	Normal Priority	Low Priority	Deadline Manager
flowbuilder\fbadmin.nsf	15	60	300	600

Figure 25